

Sub 17
D2 62. (Amended) An isolated HCV type 4 polypeptide or peptide selected from the group consisting of

- (i) the polypeptides or peptides of SEQ ID NO: 107, 109, 111, 113, 115 or 117,
(ii) at least 5 amino acids from the polypeptide or peptide of (i) having at least one genotype-specific amino acid from the region spanning positions 2645 to 2757 of the NS5B region of HCV type 4.

Sub 17
D3 74. (Amended) An isolated HCV polypeptide or peptide according to any of claims 56 or 57, which contains in its sequence at least one of the following amino acid residues:

L7, M44, Q70, A79, A87, N106, K115, A127, A190, S130, V134, G142, I144, E152, A157, V158, P165, S177 or Y177, I178, V180 or E180 or F182, R184, I186, H187, T189, S191 or G191, Q192 or L192 or I192 or V192 or E192, N193 or H193 or P193, W194 or Y194, H195, A197 or I197 or V197 or T197, V202, I203 or L203, Q208, A210, V212, F214, T216, R217 or D217 or E217 or V217, H218 or N218, H219 or V219 or L219, L227 or I227, M231 or E231 or Q231, T232 or D232 or A232 or K232, Q235 or I235, A237 or T237, I242, I246, S247, S248, V249, S250 or Y250, I251 or V251 or M251 or F251, D252, T254 or V254, L255 or V255, E256 or A256, M258 or F258 or V258, A260 or Q260 or S260, A261, T264 or Y264, M265, I266 or A266, A267, G268 or T268, F271 or M271 or V271, I277, M280 or H280, I284 or A284 or L284, V274, V291, N292 or S292, R293 or I293 or Y293, Q294 or R294, L297 or I297 or Q297, A299 or K299 or Q299, N303 or T303, T308 or L308, T310 or F310 or A310 or D310 or V310, L313, G317 or Q317, L333, S351, A358, A359, A363, S364, A366, T369, L373, F376, Q386, I387, S392, I399, F402, I403, R405, D454, A461, A463, T464, K484, Q500, E501, S521, K522, H524, N528, S531, S532, V534, F536, F537, M539, I546, C1282, A1283, H1310, V1312, Q1321, P1368, V1372, V1373, K1405, Q1406, S1409, A1424, A1429, C1435, S1436, S1456, H1496, A1504, D1510, D1529, I1543, N1567, D1556, N1567, M1572, Q1579, L1581, S1583, F1585, V1595, E1606 or T1606, M1611, V1612 or L1612, P1630, C1636, P1651, T1656 or I1656, L1663, V1667, V1677, A1681,

H1685, E1687, G1689, V1695, A1700, Q1704, Y1705, A1713, A1714 or S1714, M1718, D1719, A1721 or T1721, R1722, A1723 or V1723, H1726 or G1726, E1730, V1732, F1735, I1736, S1737, R1738, T1739, G1740, Q1741, K1742, Q1743, A1744, T1745, L1746, E1747 or K1747, I1749, A1750, T1751 or A1751, V1753, N1755, K1756, A1757, P1758, A1759, H1762, T1763, Y1764, P2645, A2647, K2650, K2653 or L2653, S2664, N2673, F2680, K2681, L2686, H2692, Q2695 or L2695 or I2695, V2712, F2715, V2719 or Q2719, T2722, T2724, S2725, R2726, G2729, Y2735, H2739, G2746 or I2746, I2748, P2752 or K2752, P2754 or T2754, T2757 or P2757.

75. (Amended) A polypeptide or peptide according to any of claims 56 or 57, wherein said polypeptide or peptide is selected from the following peptides:

D3
cont

QPTGRSWGQ	(SEQ ID NO 93)
RSEGRTSWAQ	(SEQ ID NO 220)
RTEGRTSWAQ	(SEQ ID NO 221)
LEWRNTSGLYVL	(SEQ ID NO 83)
VNYRNASGIYHI	(SEQ ID NO 126)
QHYRNASGIYHV	(SEQ ID NO 127)
EHYRNASGIYHI	(SEQ ID NO 128)
IHYRNASGIYHI	(SEQ ID NO 224)
VPYRNASGIYHV	(SEQ ID NO 84)
VNYRNASGIYHI	(SEQ ID NO 225)
VNYRNASGVYHI	(SEQ ID NO 226)
VNYHNTSGIYHL	(SEQ ID NO 227)
QHYRNASGIYHV	(SEQ ID NO 228)
QHYRNVSGIYHV	(SEQ ID NO 229)
IHYRNASDGYI	(SEQ ID NO 230)
LQVKNTSSSYMV	(SEQ ID NO 231)
VYEADDVILHT	(SEQ ID NO 85)
VYETEHHLHL	(SEQ ID NO 129)
VYEADHHIMHL	(SEQ ID NO 130)

VYETDHHILHL	(SEQ ID NO 131)
VYEADNLILHA	(SEQ ID NO 86)
VWQLRAIVLHV	(SEQ ID NO 232)
VYEADYHILHL	(SEQ ID NO 233)
VYETDNHILHL	(SEQ ID NO 234)
VYETENHILHL	(SEQ ID NO 235)
VFETVHH1LHL	(SEQ ID NO 236)
VFETEHILHL	(SEQ ID NO 237)
VFETDHHIMHL	(SEQ ID NO 238)
VYETENHILHL	(SEQ ID NO 239)
VYEADALILHA	(SEQ ID NO 240)
VQDGNTSTCWTPV	(SEQ ID NO 87)
VQDGNTSACWTPV	(SEQ ID NO 241)
VRVGNQSRCWVAL	(SEQ ID NO 132)
VRTGNTSRCWVPL	(SEQ ID NO 133)
VRAGNVSRCWTPV	(SEQ ID NO 134)
EEKGNISRCWIPV	(SEQ ID NO 242)
VKTGNQSRCWVAL	(SEQ ID NO 243)
VRTGNQSRCWVAL	(SEQ ID NO 244)
VKTGNQSRCWIAL	(SEQ ID NO 245)
VKTGNVSRWIPV	(SEQ ID NO 247)
VKTGNVSRWISL	(SEQ ID NO 248)
VRKDNVSRWVQI	(SEQ ID NO 249)
VRYVGATTAS	(SEQ ID NO 89)
APYIGAPLES	(SEQ ID NO 135)
APYVGAPLES	(SEQ ID NO 136)
AVSMDAPLES	(SEQ ID NO 137)
APSLGAVTAP	(SEQ ID NO 90)
APSFHAVTAP	(SEQ ID NO 250)
VSQPGALTKG	(SEQ ID NO 251)

D3
Cont

VKYVGATTAS (SEQ ID NO 252)
APYIGAPVES (SEQ ID NO 253)
AQHLNAPLES (SEQ ID NO 254)
SPYVGAPLEP (SEQ ID NO 255)
SPYAGAPLEP (SEQ ID NO 256)
APYLGAPLEP (SEQ ID NO 257)
APYLGAPLES (SEQ ID NO 258)
APYVGAPLES (SEQ ID NO 259)
VPYLGAPLTS (SEQ ID NO 260)
APHLRAPLSS (SEQ ID NO 261)
APYLGAPLTS (SEQ ID NO 262)
RPRRHQTVQT (SEQ ID NO 91)
QPRRHWTTQD (SEQ ID NO 138)
RPRRHWTTQD (SEQ ID NO 139)
RPRQHATVQN (SEQ ID NO 92)
RPRQHATVQD (SEQ ID NO 263)
SPQHHKFVQD (SEQ ID NO 264)
RPRRLWTTQE (SEQ ID NO 265)
PPRIHETTQD (SEQ ID NO 266)
TISYANGSGPSDDK (SEQ ID NO 267)

D3
const

84. (Amended) A kit for detecting HCV serotype(s) present in a biological sample liable to contain it, comprising at least the following components:

- (i) at least a polypeptide or peptide according to any of claims 56 or 57, with said polypeptide or peptide being preferentially immobilized on a solid substrate, and more preferentially on one and the same membrane strip,
- (ii) a buffer and components necessary for producing the binding reaction between these polypeptides or peptides and the antibodies against HCV present in the biological sample,

Sub
H7
D4

- (iii) optionally, a detector for determining the presence of immune complexes formed in the preceding binding reaction, and
- (iv) optionally an automated scanning and interpretation device to confirm the HCV serotype(s) present in the sample from the observed binding pattern.

85. (Amended) A kit for confirmation of HCV serotype(s) present in a biological sample liable to contain it, comprising at least the following components:

- D4
cont
- (i) at least a polypeptide or peptide according to any of claims 56 or 57, with said polypeptide or peptide being preferentially immobilized on a solid substrate, and more preferentially on one and the same membrane strip,
 - (ii) a buffer and components necessary for producing the binding reaction between these polypeptides or peptides and the antibodies against HCV present in the biological sample,
 - (iii) optionally, a detector for determining the presence of immune complexes formed in the preceding binding reaction, and
 - (iv) optionally, an automated scanning and interpretation device to confirm the HCV serotype(s) present in the sample from the observed binding pattern.

REMARKS

Reconsideration is requested.

Claims 56-83 are pending.

The claims have been amended to correct inadvertent typographical errors in the originally-presented claims. No new matter has been added.

Responsive to the Communication dated March 25, 2002, the applicants respectfully submit that the applicants requested in a Preliminary Amendment dated August 15, 2000 and a Request dated August 15, 2000, that the computer-readable